

smaller gravel is dropped in a pit that the bird is excavating and then kicked out by the bill-brace technique; one bird was seen to pull at a 61-g rock wedged in the gravel at the edge of its pit until the stone fell in, to be kicked out by the bill-brace technique. The readiness and facility with which *conirostris* uses its bill in this way seems especially interesting in view of the similar ability shown by several other geospizines in manipulating objects with their bills, particularly the famous "tool-using" habit.

It might be noted parenthetically that a more widespread technique of turning over objects, flipping them over with a sideways sweep of the bill, is also to be seen on Hood Island, but not from a geospizine. Rather it is the mockingbird, *Nesomimus macdonaldi*, so similar in build and disposition to the related curved-billed *Toxostoma* thrashers, that does this and does it well.

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***Falco rufigularis*—the Correct Name of the Bat Falcon.**—In current literature *Falco albigularis* and *Falco rufigularis* are competing names for a common and widespread neotropical species. Peters (Check-list of Birds of the World, 1, p. 291, 1931) and Friedmann (Birds of North and Middle America, pt. 11, p. 674, 1950) adopted *F. albigularis*; Hellmayr and Conover (Catalogue of Birds of the Americas, pt. 1, no. 4, p. 306, 1949) adopted *F. rufigularis*. Subsequent authors disagree, depending on which of these authorities is followed.

Both names have the same authorship and date; both appear on the same page of Daudin's *Traité Élémentaire Comparative d'Ornithologie*, 2, p. 131, 1800. *Albigularis* has line priority; *rufigularis* has undisputed applicability (which has been questioned as to *albigularis*) and is supported by the first reviser principle enunciated in the new International Code of Zoological Nomenclature, Art. 24 (1961). Daudin supplied no description, but named as separate species two specimens briefly characterized as "Orange-breasted Hobby" by Latham (Gen. Syn. Bds. Suppl., pp. 28–29, 1787)—a designation that Latham (Gen. Syn. Bds. 1, p. 105, 1783) seems to have used originally for the species currently called *Falco deiroleucus* Temminck. In the extensive literature prior to 1874 whenever a Daudin name was applied to the Bat Falcon it was called *rufigularis*; (e.g., Gray, *Genera of Birds*, 1, p. 20, 1844; *List of Spec. Brit. Mus.*, pt. 1, Accip., p. 54, ed. 2, 1848; Strickland, *Orn. Syn.*, 1, p. 88, 1855; Sclater, *Proc. Zool. Soc., Lond.*, p. 134, 1855; Cassin, *Proc. Acad. Nat. Sci. Phila.*, 7, p. 278 footnote, 1855; Pelzeln, *Orn. Bras.*, 1, p. 5, 1867). Strickland (1855) unequivocally made a choice between competing names regarded as applicable to the same species, for in selecting *rufigularis* of Daudin, he listed *albigularis* of the same author in the synonymy, thus complying in the strictest sense with the first reviser rule.

Nomenclatural principles were far from settled in 1874, when Sharpe in the *Catalogue of Birds in the British Museum*, 1, p. 401, adopted *Falco albigularis*, relegating *rufigularis* to synonymy. No reason was given, but presumably Sharpe acted on the basis of line priority, which many zoologists have favored. Gurney, a birds of prey specialist, strongly criticized Sharpe for replacing the better known name (*Ibis*, pp. 158–159, 1882); in his own subsequent *List of the Diurnal Birds of Prey* (p. 103, 1884) he not only maintained *rufigularis*, but pointed out that Latham's description of the specimen named *albigularis* by Daudin was ambiguous. Berlepsch (*Nov. Zool.*, 15, p. 294, 1908) expressed a similar opinion in adopting *rufigularis*. As a result, despite the tendency of many authors to follow the nomenclature of the British Museum Catalogue, during the end of the 19th century and the early 20th century *rufigularis* continued to have about equal currency (see synonymies in Hellmayr and Conover, *op. cit.*, pp. 303–309). Under the *Règles Internationales de la Nomenclature Zoologique* (1901) the first reviser principle was given effect where competing names were of the same date. But many ornithologists, especially in the United States, preferred to follow the line priority rule. Peters, who in general complied with the International Rules in

his Check-list, expressly stated (*op. cit.*, p. vii, 1931) that he followed the line priority doctrine and rejected the first reviser principle; presumably on that basis he adopted *F. albigularis*. Hellmayr and Conover (*op. cit.*, p. 306 footnote, 1949), without mention of the first reviser principle, adopted *rufigularis* on the ground that *albigularis* was of uncertain applicability. The new (1961) International Code of Zoological Nomenclature, Art. 24, makes the first reviser principle unequivocally applicable to the situation here involved. This principle tends to maintain stability. Universality of usage makes it desirable that the Code be accepted, even though there are bound to be cases when a zoologist may question the wisdom of a particular rule; invariably there are competing arguments on each side. Here the application of the first reviser principle proves especially helpful, for it solves a conflict of usage without requiring a decision of the more controversial question as to the applicability of *albigularis*. Under the first reviser rule *Falco rufigularis* is indubitably the correct name.—EUGENE EISENMANN, *American Museum of Natural History, New York, New York 10024, 19 July 1965.*

Absence of Brood Patch in Cassin Auklets.—Incubation patches of varying number and location have been described from several alcidids, including the Great Auk, *Pinguinus*, the Razor-bill, *Alca*, the murre, *Uria*, the guillemots, *Cepphus*, the Puffin, *Fratercula*, and the Dovekie, *Plautus*, by Storer (Univ. Calif. Publ. Zool., 52:121, 1952), Kozlova (Zool. Inst. Acad. Sci. USSR, no. 65, 1957), Belopol'skii (Ecology of Sea Colony Birds of the Barents Sea, 1957), and Lockley (Puffins, 1962). Baillie (Condor, 54:121, 1952) and Kozlova have further stated that brood patches are present in all species of the family Alcidae. In the murrees these structures have been described as areas of loose, bare skin by Tuck (Canadian Wildl. Ser., Bull. no. 1, 1960).

Cassin Auklets (*Ptychoramphus aleutica*) were examined for brood patches on the breeding ground on South Farallon Island, California, on 8–15 July 1964. Of 53 adults with no eggs or young, 21 adults on eggs, and 26 adults with young, no auklets had a trace of a bare spot on the neck, breast, belly, flanks, or under the wings. On another visit to the island on 2 June 1965, George E. Chaniot, Larry L. Wolf, and I found nine incubating adults of both sexes. No brood patch was found on any of these birds. Eight of the birds were anesthetized or skinned and were examined for concealed bare areas. No bare spots were found, and no areas of the skin appeared unusually thickened or vascularized. Thoresen (Condor, 66:456, 1964) noted incubating Cassin Auklets holding the egg in various positions under the body. We photographed one auklet holding the egg against the side of the body under one wing. The egg appeared to be held on the top of the webbed foot off the bare ground of the burrow. The skin against which the egg was held on the flanks of the incubating birds between the abdominal, femoral, and axillar feather tracts was covered with fine contour feathers about 5 mm long, although the longer feathers of the dense tracts were absent in this region. This skin also differed from the skin of the abdominal region in lacking a layer of thick down. The absence of down probably permits more heat to pass from the incubating bird to the egg. The body temperature of six birds, measured with a thermometer inserted 10 mm into the cloaca and up the rectum, averaged 41.5°C, and the temperature of the skin beneath the wings and on the flanks averaged 39.7°C.

The absence of a brood patch in Cassin Auklets may be related to the small size of these sea birds. The body surface-volume ratio is larger in small birds, and the presence of a relatively large unfeathered area on the small body might bring on excess loss of heat to the cold ocean. The bare feet of sea birds, on the other hand, are known to have vascular adaptations which conserve body heat, according to Irving (Handbook of Physiology, Adaptation to the Environment, Sect. 4:361, 1964). It is of interest to note that the species of alcidids in which a brood patch has been described, except for the Dovekie, are larger than Cassin Auklets.

The nine incubating Cassin Auklets examined on 2 June 1965 were all in body molt, and seven of the birds had also begun the molt of the 11 primaries. A male with the inner three primaries on each wing in molt had testes 7.9 mm in length, two males with the inner two primaries in molt had testes 9.2 and 14.2 mm, two males with the inner pair of primaries in molt had testes 12.3 and 12.8 mm, and a male with no growing primaries had testes 12.6 mm in length. The males with the five largest testes had sperm and also many sloughed necrotic, immature germ cells in the lumina of the seminiferous tubules and in the epididymis, and these testes were evidently in